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Art Unit: 2682

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Page 2

**Remarks:** begin on page 15 of this paper.

**Amendments to the Specification:**

Please replace the paragraph beginning on page 1, line 15 with the following paragraph:

Unified messaging is a quickly emerging technology that will allow people to send and receive messages from and to a variety of different types of message communicating devices (MCDs). The different MCDs communicate with one another using various data state or states (e.g., file formats) including, for example, voice, fax, email, music, video, and image data. Consequently, there is a need for systems that can convert files from one data state to any other data state. For example, a facsimile machine may need to communicate with an email server by sending a TIFF file to a recipient's email box. To reduce the size of the file, it might be desirable to first compress the file to a text format, via optical character recognition. (OCR). -

Conventionally, this conversion is done by the sending facsimile machine or a server to which the facsimile machine is connected. Unfortunately, the sending facsimile machine or server may not have routines to perform the required conversion, or may not be able to execute the required conversion engine optimally.

Please replace the paragraph beginning on page 11, line 2 with the following paragraph:

In addition to the computing platforms described above on which the conversion engines are executing, there is a least cost conversion processor 122. Least cost conversion processor 122 is a computer that receives loading information from computing platforms 102, 104, 106, 108, 110, 112, 114, 116 and 118. The loading information includes information describing the load on the machine and the network. Preferably, the loading information is stored in a database

124. Communication with the computing platforms is through a communication process 120j.  
Such a communication process would be well-known to those skilled in the art and need not be described further. In an embodiment of the present invention, database 124 is organized as two tables, a static table 126 and a dynamic table 128. It would be apparent that static table 126 and dynamic table 128 can be stored in separate databases. Least cost conversion processor 122 uses static table 126 and dynamic table 128 as input to a least cost conversion algorithm (described below) to determine for any given message delivery request, which conversion engines should be used for a given conversion. In the preferred embodiment of the present invention, cost tables 126 and 128 are consolidated into a single cost table (described below).

Please replace the paragraph beginning on page 12, line 13 with the following paragraph:

To perform the conversion, computer 132 contacts least cost conversion computer 122 using a communication process 120k, and through well-known messaging constructs, informs computer 122 that a conversion from text to WAV or MP3 is required. Communication process 120k would be well-known to those skilled in the art and need not be described further.

Computer 122 determines the cost of performing these conversion using different conversion engines, including using intermediate conversions. In the preferred embodiment, the cost of ultimately sending the file to the destination is also considered. For example, long distance charges may be incurred to send the file from an available node that only plays WAV-formatted files, but no incurred when the file is sent from an available node that plays MP3-formatted files. Once the least cost conversion is determined, the file is converted and sent to the computing

platform or platforms on which the required conversion engine or engines are executing. After conversion is complete, the file is sent to computer 132 for transmission, in this case, streaming to the destination telephone. In an alternative embodiment of the present invention, the computing platform on which the conversion is completed performs the sending of the file.

Please replace the paragraph beginning on page 17, line 10 with the following paragraph:

Encoding of files is described in more detail with reference to an encoding graph 250 illustrated in Figure 2A. Preferably, each file starts in a raw binary format 252, though files can exist in any encoding format. As described above, conversion processor 122 can determine that the file should be encoded in a different format after conversion. If the files is to be encoded in a different format, it is preferably encoded in raw binary format 252 prior to conversion. Conversion processor 122 encodes the file in the desired format. For example, the file can be encoded to and from a Huffman format 254 using a pack utility. The file can be converted to and from an Adaptive Huffman format 256 using a "compact" utility. The file can be converted to and from an LZW format 258 using a "compress" utility. The file can be converted to and from a Base64 format 260 using the Mime++ freeware software library. The file can be converted to and from a Lempel-Ziv (LZ77) format 262 using a "WinZip" utility or a "gzip" utility. It would be apparent to those skilled in the art that other encoding formats and encoding routines to convert among the encoding formats can be used.